REMEDIAL PROJECT MANAGERS' MEETING MINUTES
NASA/JET PROPULSION LABORATORY CERCLA PROGRAM
August 19, 1993

Attendees: Organizations represented at the Remedial Project Managers' (RPMs') meeting included the following:

- U.S. EPA (EPA)/Federal Enforcement Branch, Region 9, San Francisco, CA
- California EPA/Department of Toxic Substances Control (DTSC), Region 3
- NASA, NASA Resident Office, Jet Propulsion Laboratory
- Los Angeles Area California Regional Water Quality Control Board (RWQCB)
- Jet Propulsion Laboratory, Contractor to NASA
- EBASCO Environmental, Contractor to JPL

A list of individuals attending this RPM meeting is attached to these minutes.

OBJECTIVE:

The purpose of the NASA/Jet Propulsion Laboratory meeting held on 19 August 1993 at the Jet Propulsion Laboratory in Pasadena, California was to discuss the agencies' comments on the draft documents submitted by JPL for the Superfund Project.

1. TOPIC: Agency Comments On Draft Documents

Buril informed the attendees that the agencies' comments on the draft documents have been reviewed and it is necessary for NASA/JPL to obtain further clarification from the agencies on the following issues in order to proceed with the project as planned:

QA/QC Data Validation: Buril requested specific direction from EPA regarding requirements for data validation. Schutz reported that all data (through the RI) should be delivered at Level IV. The initial phase should be 100% validated to gain a level of confidence with the lab. Melchior reported that all samples will go through a QC check and an audit of the laboratory will be performed during the first two weeks of sampling.

Action: Buril will recommend to NASA that all initial sampling for OU-1 and OU-3 be performed with 100% data validation, then cut back to 10% providing no problems are noted. In addition, any sample with a constituent detected over the MCL will be 100% validated. Buril will recommend that data be delivered at Level IV validation. Schutz will provide examples of validation reports that EPA finds acceptable and/or guidance on expected format and contents of validation reports.

Soil Gas Survey: Buril inquired about the RWQCB requirement for additional vapor wells. Bishop commented that the RWQCB does not feel that the initial number of well locations should be viewed as the total extent of the soil gas survey because, if sufficient contaminants are found, the surrounding area will need to be evaluated. A discussion ensued regarding vapor wells and soil gas surveys. It was concluded that the proposed work is adequate as an initial survey. If a problem is noted NASA/JPL will address the need for additional wells.

Buril requested written guidance on contamination concentration criteria for determining the need for deep vapor wells. Per Bishop, the RWQCB does not have any written criteria. The issue was further discussed, and the RWQCB recommended that if contamination is detected, a well will be necessary if the concentration of the contaminants could reasonably impact the ground water. Schutz concurred and indicated that all agencies would review the information and evaluate the need for additional work at that time.

Action: Buril will discuss the above soil gas survey plan with NASA for their approval. Should the need of additional wells be determined, a plan will be prepared to identify the work required and will be included as an addendum to the Work Plan and/or FSAP as appropriate.

Ground Water Modeling: Buril reported that the CH2M Hill data will be obtained for groundwater modeling information. There is concern with the City of Pasadena and their timing with respect to the City's spreading basin expansion. A discussion was held regarding modeling, and the dynamics and complexity of the spreading basins. It was determined that modeling could be a good tool for drawing conclusions. However, the schedule will not be extended. The agencies will be kept informed of modeling effort status.

Action: NASA/JPL may use modeling. Rationale will be more clearly stated in all reports.

Ground Water Flow Reversal: Buril commented that the recently identified ground water flow reversal was likely due to high rates of water infiltration during the last two wet seasons. The phenomenon may be important to understand, but it was unclear at which phase of the project it should occur. EPA has indicated that the wells (existing and new wells) would

require wet season and dry season sampling to get enough information to complete an FS. However, all wells could not be installed according to the schedule and still allow for more than one round of sampling in either the wet or dry seasons. Schutz stated she is concerned that there may not be enough time to do sampling for both wet and dry seasons. Specifically, what is planned should there be a data gap? A discussion concluded that a meeting will be held as soon as possible after the data from the January/February sampling is received. A discussion followed with respect to the number of wells and alternatives available.

> **Action:** Per Schutz, the proposed well locations will be looked at and a determination made as to which ones should be installed first in order to allow collection of wet and dry season samples for those wells.

Request for Plume and COC Concentration Maps: Buril requested clarification on how the data from previous sampling events can be used. Providing the maps as requested by the EPA appears to be using the data to draw conclusions regarding the extent of contamination. Also, EPA seems to be assuming that JPL is the sole source of contamination. There is insufficient data to make this conclusion. A discussion followed with Schutz clarifying that if the old data correlates with new-validated data, it may be used for screening. At this time, EPA is assuming that JPL is the sole source as there is no other data available to the contrary.

> **Action:** The agencies will allow the old data to be used for screening, providing it correlates with the new, validated data.

Summary Report: Buril reported that the RI/FS and ROD are identified as 3 reports (one for each OU) in the schedule. Buril asked for clarification on the comment requiring one all encompassing report and the impact that would create on each OU schedule. It was concluded that each OU will have a report, with the OU-3 report summarizing data from OU-1, 2 and 3. This should not impact the schedule.

> **Action:** The OU-3 report will include information from the other OUs as well.

Accessibility Issues: Buril expressed concern regarding the accessibility of some locations for the installation of wells. The obstacles to placing wells at Building 302 (MDL) and Building 306 (OIL) were discussed with alternatives being offered by the agencies.

> **Action:** To make a better evaluation of contamination near Building 302, Buril will recommend to NASA that MW-12 be moved to the west side of the Arroyo. In addition, soil probe work will also be conducted near the MDL. If

contamination is found, a determination will be made for additional work.

Action: To assess the extent of the petroleum hydrocarbons that were detected under Building 306, Buril will recommend to NASA that the possibility of collecting soil samples on the west side of the building be explored. In addition, it will be recommended that soil gas probes be spaced around the perimeter of the building and that metals and TPH be monitored at well MW-4.

2. TOPIC: Specific Comments

Buril responded to certain specific agency comments regarding the various plans. The conclusions and/or actions are listed below:

RI/FS Workplan Comments:

Readability: The agencies felt that the plan was difficult to read and needed to be re-formatted to improve readability.

Action: The agencies will set up a conference call and come to consensus on a recommended format.

JPL Definition: A single definition for JPL needs to be made to avoid public confusion.

Action: If possible, an agreement will be made by NASA and Caltech to obtain one definition.

Determination of Future Uses of Ground Water At JPL: EPA requested an evaluation be made regarding the future potable/industrial uses of groundwater under JPL. Buril stated that JPL using the water was not probable for a number of reasons and questioned the need to evaluate something that would not occur. Buril noted EPA headquarters guidance that scenarios that are not likely to occur need not be evaluated. Schutz said this needs to be addressed and agreed to provide examples.

Action: Schutz will provide examples of evaluations of this type.

DNAPL Plume Concern: Buril stated that there is no reason to believe that DNAPL (dense, non aqueous phase liquid) is a problem. Groundwater samples have not shown an increase with depth in contaminant levels that would expected in the presence of a DNAPL plume.

Action: Information from previous rounds of sampling will be gathered and verified.

Risk Assessment Concerns: Schutz indicated that NASA/JPL needs to look more closely at pathways and receptors. Discussion was held regarding validity of information gathered and the hazard quotient.

Action: NASA/JPL will look at the issue of performing a Phase I evaluation of pathways and receptors. To further discuss this issue, a conference call will be held late in September with Buril, Novelly, Melchior and toxicology reps from the agencies.

Investigation Derived Waste (IDW): The disposal of IDW, and non-haz/N.D. materials needs to be more clearly defined in the reports.

Action: Non-detect and non-hazardous designations will be more clearly defined in the reports. The appropriate action will then be taken for disposal.

Background Concentrations of Potential Contaminants: Background issues requested by the EPA were not in reference to the facility proper, but the background concentration in the general area of JPL. Background levels should be taken for metals.

Action: Arrangements for background samples will be made. Information regarding this effort will be placed in the Workplan.

Field Sampling and Analysis Plan (FSAP) Comments:

Drilling Methods: Due to the stratigraphic complexity of the facility and accessibility to sites, hollow stem auger and air rotary drilling methods will not work. Various methods were discussed. Reference was made that there was concern regarding the use of air rotary. Clarification was made that dual wall air percussion drilling is being used.

Action: The use of dual wall air percussion in addition to soil vapor probes was agreed upon as being a method that would allow borings to be installed with minimal impact to sample quality.

Quality Assurance Project Plan (QAPP) Comments:

Data Validation: Discussions were held regarding the need for validation efforts with Level IV.

Action: Buril will present to NASA that all initial sampling for OU-1 and OU-3 be performed with 100% data validation, then cut back to 10% providing no problems are noted. In addition, any sample with a constituent hit over the MCL will be validated. Data will be delivered at Level IV validation. Schutz will provide

examples of validation reports that EPA finds acceptable and/or guidance on expected format and contents of validation reports.

Third Party Data Validation: The need for an outside third party to provide sample and data validation services was reviewed.

Action: Schutz will check with EPA management to verify if it is necessary to have another consultant validate the data.

3. TOPIC: Parking Structure

Buril informed the attendees that JPL has proposed the construction of a parking structure. He is concerned that there may be requirements and/or limitations by NEPA, CEQA, due to the Superfund project. A discussion followed with suggesting that the RCRA Guidelines be followed.

Action: Nakashima will provide information to Buril on what would need to be submitted.

4. TOPIC: Status of Previous Meeting Action Items

Action Item: JPL will contact the City of Pasadena to determine if an MOU regarding the DGMUP and JPL CERCLA can be reached.

Status: Buril reported that the City of Pasadena has been contacted but no agreement has been made due to budget constraints. The expansion of the spreading basins also needs to be addressed.

Action Item: EPA was to provide copies of the regulations regarding PRP determinations.

Status: No regulations have been received. EPA stated that there are no regulations. A letter was sent to D. Huff and William Barr. Buril will check on the status.

Action Item: JPL will reevaluate sampling around Building 302 and attempt to find a means to sample.

Status: (Discussed earlier in these minutes) - To make a better evaluation of contamination near Building 302, Buril will recommend to NASA that MW#12 be moved to the west side of the Arroyo. In addition, soil probe work will also be conducted near the MDL. If contamination is found, a determination will be made for additional work.

Miscellaneous Topics

Numerous comments were made by the meeting participants during the course of the meeting. These are summarized here with any associated actions.

The agencies related that they will work closely with NASA/Caltech during the RI to interpret sampling results and make recommendations for further work to fill identified data gaps. This will be accomplished via regular RPM meetings.

Madyun expressed concern regarding the seepage pit at Building 144 as there was no mention of it in the source evaluation. Randolph reported that after review of aerial photos, research on microfiche, and discussion with employees, it was determined that the pit actually served Building 119. The closest current landmark is Building 144. It was further reported that Building 119 was demolished.

> **Action:** Randolph will provide clarification of seepage pit location, which building was served by the pit, and the status of Buildings 144 and 119.

Nakashima commented that there was no mention of seepage pit #23 in the documents. Randolph reported that due to close proximity of pit #23 and #24 the sampling effort was combined.

> **Action:** Clarification will be made on the sampling effort for seepage pits #23 and #24.

The difficulty of accessing seepage pit #11 was discussed in detail. Alternative sampling techniques were discussed due to the complexity of the building location and the adjacent retaining wall.

> **Action:** The west side of Building 113 will be evaluated for locating soil probes to assess seepage pit #11.

DTSC stated preference for using bladder pumps when sampling for VOCs. Buril reported that past experience with bladder pumps shows that they will not work at the proposed depths. The Grundfos pumps that have been proposed have an EPA endorsement for use when sampling for VOCs and are preferred over bladder pumps and bailers for VOC sampling.

A suggestion to rinse with nitric acid for metal cross contamination and hexane (or other solvent) for organic cross contamination was reviewed. Buril is very concerned that use of the materials may create cross contamination problems. Some of the alternatives recommended were liquinox and citronox. Citronox can address the concern on metals. Also, the cross contamination concern will be eliminated when dedicated pumps are installed.

Bishop was unclear on the catch basin at Building 107 that was excavated, then filled with concrete. Randolph reported on the events. Building 81 was demolished during normal facilities renovation. During the renovation at the location, the concrete vault (catch basin) was broken while being removed. Stained soil was noticed, and samples were taken. Before sample results were obtained, construction workers spread some of the stained soil around the basin, thereby contaminating more soil. The stained soil and all soil that it contacted was removed from the site. Bishop requested that post excavation data be provided. It was also agreed that, because the excavation was back filled with lean concrete, it would be reasonable to conduct soil gas work on the sides adjacent to the original catch basin location.

Madyun questioned which interpretation of the JPL fault line would be used. Cutler reported that several interpretations are given. One interpretation will be selected, recognizing that the interpretation may change as more data is obtained.

Schutz requested that the FSAP include specific information on how OVA monitoring of cuttings will be used to make field decisions on where to take soil samples during well drilling.

DTSC requests the addition of a contingency to reinvestigate groundwater north of thrust fault in response to information derived from investigation of seepage pits.

Schutz raised a question regarding the location of MW-13 and whether or not it is down gradient of the suspected contamination at pits 23, 24 and 25. A discussion followed with rationale and alternative locations for the subject well.

> **Action:** A recommendation will be made to NASA that MW-13 be moved in a S/SE direction (from Explorer Road to Sergeant Road).

Schutz questioned when data validation would begin. Buril confirmed that data validation would being on receipt of data.

Schutz stated that references to background for metals and TPH should be corrected.

Schutz noted that state does not develop Federal ARAR.

Schutz commented that EPA will not write the ROD. It will only be reviewed and approved by EPA.

Schutz reminded Buril of the September 24, 1993 deadline for the draft final documents. If there are comments or difficulty in meeting this, the agencies should be notified.

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